

CDSA

Comprehensive Digestive Stool Analysis

sample type: **STOOL**

The **Comprehensive Digestive Stool Analysis (CDSA)** is Genova's original non-invasive evaluation of gastrointestinal function. This assay helps pinpoint imbalances, provides clues about current symptoms, and warns of potential problems should imbalances progress.

Digestive complaints are among the most common reasons that individuals seek medical care.

GI Indications for Testing:

- Indigestion
- Constipation
- Diarrhea
- Gas and Bloating
- Infection
- Dysbiosis
- Abdominal pain
- Irritable Bowel Syndrome (IBS)

Recent evidence confirms that GI abnormalities may be associated with many conditions **outside of the GI tract.**

Extra-intestinal Indications for Testing:

- Arthritis
- Autoimmune disease
- Chronic Fatigue
- Fibromyalgia
- Antibiotic use
- Skin problems
- Osteoporosis
- Diabetes

The **CDSA** is comprised of the following clinically useful panels:

- **Digestion Markers:** An indirect evaluation of digestive function, providing insight into adequate digestive enzyme production and maldigestion. Markers include Chymotrypsin, Putrefactive Short Chain Fatty Acids (SCFAs), Meat Fibers and Vegetable Fibers.
- **Absorption Markers:** Elevated levels of the listed fatty acids may indicate maldigestion, malabsorption, altered transit time, and small bowel bacterial overgrowth. Markers include Long Chain Fatty Acids, Phospholipids, Cholesterol, Triglycerides and Total Fecal Fat.
- **Metabolic Markers:** These markers identify imbalances that are associated with increased toxic burden, small bowel bacterial overgrowth or severe inflammation. Abnormal levels are associated primarily with intestinal conditions, including potential risk for colorectal cancer. Markers include Beneficial SCFAs, n-Butyrate, Beta-Glucuronidase, pH, Fecal Lactoferrin, Macroscopic exam, and Occult blood.
- **Microbiology Markers:** Provides quantitative measures of the beneficial flora Lactobacillus and bifidobacterium as well as additional aerobic flora as they present in culture. These include strict pathogenic bacteria and potentially pathogenic bacteria and yeast.
- **Parasitology:** (EIA and microscopic evaluation) This evaluation demonstrates the highest documented recovery rates available (22% positivity rate). It quantifies all ova and parasites identified. Microscopic evaluation for yeast and blood cells is included.

• Analytes:

Triglycerides
chymo-trypsin
Putrefactive SCFAs
meat and
vegetable fibers
long chain fatty acids
cholesterol
total fecal fat
total short chain fatty acids
n-butyrate
short chain fatty acid distribution
beta glucuronidase
pH
bacterial and yeast cultures
sensitivities as appropriate
fecal lactoferrin
macroscopic analysis

• Specimen Requirements:

5cc stool in each vial— Formalin
and Cary/Blair

• Before Taking this Test:

- Avoid antimicrobials, laxatives, and anti-diarrheals (for 3 days)
- Avoid or reduce anti-inflammatories, digestive enzymes, and most pain relievers (for 2 days)
- See instructions inside test kit for more details

Comprehensive Digestive Stool Analysis



Patient: **SAMPLE PATIENT**
 DOB: April 25, 1980
 Sex: M
 MRN:

Order Number:
 Completed: November 28, 2007
 Received: November 21, 2007
 Collected: November 15, 2007
 Route Number: A080461

Digestion

	Reference Range
Chymotrypsin	0.9-26.8 U/g
Putrefactive SCFAs (Total*)	1.3-8.6 micromol/g

* Total values equal the sum of all measurable parts.

	Inside	Outside	Reference Range
Meat Fibers*	None		None
Vegetable Fibers	Few		None - Few

Absorption

	Reference Range
Triglycerides	0.2-3.3 mg/g
Long Chain Fatty Acids	1.3-23.7 mg/g
Cholesterol	0.2-3.5 mg/g
Phospholipids	0.2-8.8 mg/g
Fecal Fat (Total*)	2.6-32.4 mg/g

* Total values equal the sum of all measurable parts.

Metabolic Markers

	Reference Range
Beneficial SCFAs (Total*)	>= 13.6 micromol/g
n-Butyrate	>= 2.5 micromol/g
Beta-Glucuronidase	337-4,433 U/g
pH*	6.1-7.9

* Total values equal the sum of all measurable parts.

SCFA distribution

Acetate %	44.5-72.4 %
Propionate %	<= 32.1 %
n-Butyrate %	10.8-33.5 %

Immunology

	Inside	Outside	Reference Range
Fecal Lactoferrin*	Negative		Negative
Color	Brown		Brown
Mucus	Negative		Negative
Occult blood*	Negative		Negative

Microbiology

Bacteriology

Beneficial Bacteria

Lactobacillus species	(3+)
Escherichia coli	(*NG)
Bifidobacterium	(2+)

Additional Bacteria

alpha haemolytic Streptococcus	NP	(4+)
gamma haemolytic Streptococcus	NP	(4+)
Bacillus species	NP	(1+)
Citrobacter freundii	PP	(4+)
Enterobacter cloacae	PP	(4+)

Mycology

Candida albicans	NP	(1+)
Candida parapsilosis	NP	(1+)
Hansenula anomala	NP	(1+)
Rhodotorula species	NP	(2+)

*NG NP PP P
 No Growth Non-Pathogen Possible Pathogen Pathogen

This test reveals important clinical information about:

- **Maldigestion** that can result in GI symptoms such as gas, bloating, abdominal pain, diarrhea and constipation
- **Chronic dysbiosis (altered gut ecology) and inflammation** that can impair absorption, leading to deficiencies of nutrients, proteins, carbohydrates and fats, or induce systemic autoimmune reactions
- **Excess bacterial enzyme activity** in the intestine that can promote carcinogenesis, hormonal imbalances and GI irritation
- **Short chain fatty acid inadequacy** linked to increased incidence of colon cancer and ulcerative colitis
- **Bacterial and yeast overgrowth** underlying gastrointestinal symptoms, chronic fatigue, mood shifts, and weakened immune function
- **Chronic digestive dysfunction** that can set the stage for the development of leaky gut, food allergies, toxic stress, and gut irritation

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For test kits, clinical support, or more information contact:

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More detailed publications with references are also available: www.GDX.net